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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/420,918

10/20/1999

DAVID E. ROSENSTEIN

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12/21/2005

Jung-hua Kuo

Attorney At Law

PO Box 3275

Los Altos, CA 94024

EXAMINER

JUNTIMA, NITTAYA

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/420,918

Applicant(s)

ROSENSTEIN ET AL.

Examiner

Nittaya Juntima

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-19 and 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the Notice of Appeal filed 9/7/2005.
2. Claims 4 and 20 were cancelled.
3. Claims 1-3, 5-19, and 21-24 are presently rejected under 35 U.S.C. 103(a) in view of the newly discovered references.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5-19, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster et al. ("Schuster") (USPN 6,954,454 B1) in view of Milbrandt (USPN 6,631,120 B1).

Regarding claim 1, as shown in Fig. 4, Schuster teaches a system comprising:

A derived voice over data termination device (Internet Telephony Gateway, ITG 250) located outside of a client premise (a client must be located in the outside plant), said derived voice over data termination device configured to convert between base band signals (analog voice calls) and derived voice over data signals (RTP IP packets) utilizing derived voice over data technology (ITG 150 is located inside the IPCO 200, col. 10, ll 19-59, see also col. 4, ll 48-56, col. 5, ll 3-11, and col. 7, ll 44-53).

Art Unit: 2663

A connection (an ADSL 214c) between the client premise and the derived voice over data termination device (ITG 250), wherein the connection carries analog frequencies (col. 10, ll 19-24, see also col. 5, ll 60-col. 6, ll 2 and 49-52, and col. 7, ll 44-53).

Figure 4 of Schuster further shows that a digital subscriber line access multiplexer (DSLAM 270) is coupled to router(s) 240 and a provider A of voice 242a which must contain a router for communicating voice IP packets with the router(s) 240 (col. 10, ll 59-col. 11, ll 2). Therefore, the router recited in the claim reads on the router residing in the provider A of voice 242a that communicates with router(s) 240 and is coupled to the DSLAM 270 via router(s) 240.

However, Schuster fails to explicitly teach that the DSLAM is coupled between the derived voice over data terminal device and the router.

On the other hand, in Fig. 1, Milbrandt teaches a system for providing both telephone and data services to subscribers 12 using subscriber lines 16 connected to a central office 14 where the data services are processed by a DSLAM 69 and forwarded to network 70 by a router 68 integrated in the DSLAM 69 (col. 5, ll 6-9, col. 6, ll 25-29 and col. 7, ll 10-20).

Given the teaching of Milbrandt, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Schuster by integrating router(s) 240 of Schuster shown in Fig. 4 into the DSLAM 270, such that the modified DSLAM 270 (integrated with router(s) 240) would be coupled between the derived voice over data termination device (ITG 250) and the router (the router residing in the provider A of voice 242a) as recited in the claim. The suggestion/motivation to do so would have been to integrate a router as part of a DSLAM as taught by Milbrandt (col. 7, ll 10-20). Further it has been held that

Art Unit: 2663

forming in one piece an article which has formerly been formed in two pieces and put together in involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Regarding claim 2, Schuster also teaches that the connection (an ADSL 214c) is powered by the derived voice over data termination device (as shown in Fig. 4, since the ADSL 214c is connected to the ITG 250 residing in the CO switch 220, therefore, the ADSL 214c must be powered by the ITG 250).

Regarding claim 3, it is inherent that the connection (an ADSL 214c in Fig. 4) must be over a single metal wire pair.

Regarding claims 5-6 and 16, the combined teaching of Schuster and Milbrandt does not explicitly teach that the voice over data termination device (ITG 250 in Fig. 4) is connected to at least one port of the modified DSLAM (Schuster, Fig. 4, DSLAM 270 combined with router 240, see rejection of claim 1), wherein each of the port is selected from a group consisting of DSL, DS1, DS3, OC-3, OC-12, Ethernet, E3, E1, and OC-48.

Official notice is taken that both the concept and the advantages of utilizing a port selected from a group consisting of a xDSL (ADSL, SDSL, VDSL, HDSL, RADSL), DS1, DS3, OC-3, OC-12, Ethernet, E3, E1, or OC-48 is well known and expected in the art. It would have been obvious to have included the port that is selected from a group consisting of xDSL (ADSL, SDSL, VDSL, HDSL, RADSL), DS1, DS3, OC-3, OC-12, Ethernet, E3, E1, or OC-48 as each of these ports is widely available and commonly used in the communication network for testing and inter-operability purposes.

Regarding claim 7, Schuster teaches that the derived voice over data termination device (ITG 250 in Fig. 4) is selected from voice over IP.

Regarding claim 8, Schuster further teaches that the derived voice over data termination device (ITG 250 in Fig. 4) is located in a wire center (IPCO 200, col. 10, ll 19-24, 42-49).

Regarding claim 9, Schuster teaches that the derived voice over data termination device (ITG 250 in Fig. 4) is configured to receive and generate from base band voice signals packetized digital voice data (col. 10, ll 21-23, see also col. 7, ll 44-53).

Regarding claims 10, 11, and 12, in similar embodiment to Fig. 4 (col. 10, ll 19-24), in Fig. 2, Schuster teaches that incoming telephony frequencies would be routed to the CO switch 120 (col. 5, ll 64-66) and converted into IP packets by the ITG 150 (col. 7, ll 44-53), while the frequencies containing IP data would be passed onto the IP telephony system 130 (col. 5, ll 64-col. 6, ll 2). Therefore, it is inherent that a customer premise equipment (e.g. an ADSL CPE) must be located at the client premise, wherein the equipment must also be coupled to the connection (ADSL 214c in Fig. 4) and configured to receive base band voice signals (incoming telephony frequencies) and digital data signals (incoming frequencies containing IP data) carried by the connection (ADSL 214c).

Regarding claims 13 and 14, as shown in Fig. 4, Schuster teaches that the connection (ADSL 214c) includes a plain old telephone service splitter (218), the splitter being connected to a port of the DSLAM (270) (see Fig. 2 similar to Fig. 4, col. 5, ll 64-col. 6, ll 2) and to a port of the derived voice over data termination device (ITG 250) (in similar embodiment to Fig. 4, col. 10, ll 19-24, in Fig. 2, Schuster teaches that incoming telephony frequencies would be routed to the CO switch 120, col. 5, ll 64-66, and converted into IP packets by the ITG 150, col. 7, ll 44-53).

Art Unit: 2663

Regarding claim 15, as shown in Fig. 4, Schuster teaches a main distribution frame (MDF 210) coupled between the derived voice over data termination device (ITG 250) and the client premise (the client premise connected to ADSL 214c must be located in the outside plant).

Regarding claim 17, as shown in Fig. 4, Schuster teaches a network comprising:

A derived voice over data termination device (ITG 250) located in a wire center (IPCO 200) and coupled to a client premise (a client must be located in the outside plant) over a single metal wire pair (ADSL 214c) (in similar embodiment to Fig. 4, col. 10, ll 19-24, in Fig. 2, the incoming telephony frequencies carried by ADSL 114c would be routed to the CO switch 120, col. 5, ll 64-66, and converted into IP packets by the ITG 150, col. 7, ll 44-53), the device being configured to convert between base band signals (analog voice calls) and derived voice over data signals utilizing derived voice over data technology.

A derived voice over data switch (a router located in the data network of provider A 241a) coupled to the derived voice over data termination device and to a public switched telephone network (PSTN 229).

Figure 4 of Schuster further shows that a digital subscriber line access multiplexer (DSLAM 270) is coupled to router(s) 240 and a provider A of voice 242a which must contain a router for communicating voice IP packets with the router(s) 240 (col. 10, ll 59-col. 11, ll 2). Therefore, the switch recited in the claim reads on the router residing in the provider A of voice 242a that communicates with router(s) 240 and is coupled to the DSLAM 270 via router(s) 240.

However, Schuster fails to explicitly teach that the DSLAM is coupled between the derived voice over data terminal device and the switch.

On the other hand, in Fig. 1, Milbrandt teaches a system for providing both telephone and data services to subscribers 12 using subscriber lines 16 connected to a central office 14 where the data services are processed by a DSLAM 69 and forwarded to network 70 by a router 68 integrated in the DSLAM 69 (col. 5, ll 6-9, col. 6, ll 25-29 and col. 7, ll 10-20).

Given the teaching of Milbrandt, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Schuster by integrating router(s) 240 of Schuster shown in Fig. 4 into the DSLAM 270, such that the modified DSLAM 270 (integrated with router(s) 240) would be coupled between the derived voice over data termination device (ITG 250) and the switch (the router residing in the provider A of voice 242a) as recited in the claim. The suggestion/motivation to do so would have been to integrate a router as part of a DSLAM as taught by Milbrandt (col. 7, ll 10-20). Further it has been held that forming in one piece an article which has formerly been formed in two pieces and put together in involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Regarding claim 18, as shown in Fig. 4, Schuster teaches that the derived voice over data switch (a router inherently located in the data network of provider A 242a) is coupled to the public switched telephone network (PSTN 229) via a voice gateway (router 240) and a voice switch (CO switch 220).

Regarding claim 19, as shown in Fig. 4, Schuster teaches a regional switching center (not defined, reads on a provider A 242a) including the derived voice over data switch (a router inherently located in the data network of provider A 242a).

Regarding claim 21, as shown in Fig. 4, Schuster teaches a method comprising:

Art Unit: 2663

Providing a derived voice over data termination device (ITG 250) in a wire center (IPCO 200), the device being configured to convert between base band signals (analog voice calls) and derived voice over data signals utilizing derived voice over data technology (in similar embodiment to Fig. 4, col. 10, ll 19-24, in Fig. 2, the incoming telephony frequencies carried by ADSL 114c would be routed to the CO switch 120, col. 5, ll 64-66, and converted into IP packets by the ITG 150, col. 7, ll 44-53).

Providing and transmitting base-band analog voice signals (telephony frequencies) over a base-band analog connection (an ADSL 214c in Fig. 4) between the client telephone (the client telephone must be connected to ADSL 214c to receive/transmit telephony frequencies, col. 10, ll 19-24, see also col. 5, ll 64-66 and col. 7, ll 44-53) and the derived voice over data termination device (ITU 250 in Fig. 4) in the wire center (IPCO 200).

Transmitting derived voice over data signals (voice IP packets converted by ITU 250) between the derived voice over data termination device (ITU 250) and a voice gateway (a voice gateway reads on a router which must reside in the provider A of voice 242a in order to communicate with router(s) 240 coupled to the DSLAM 270 via router(s) 240) connected to a public switched telephone network (PSTN 229) via router(s) 240 coupled between the derived voice over data termination device (ITU 250) and the voice gateway (an inherent router located in provider A 242a). See col. 9, ll 34-41 and col. 10, ll 19-24.

Figure 4 of Schuster further shows that a digital subscriber line access multiplexer (DSLAM 270) is coupled to router(s) 240.

However, Schuster does not teach that the voice gateway (the router residing in the provider A of voice 242a to communicate with router(s) 240 coupled to the DSLAM 270 via

Art Unit: 2663

router(s) 240) is connected to the PSTN (229) via the DSLAM that is coupled between the derived voice over termination device (ITU 250) and the voice gateway.

On the other hand, in Fig. 1, Milbrandt teaches a system for providing both telephone and data services to subscribers 12 using subscriber lines 16 connected to a central office 14 where the data services are processed by a DSLAM 69 and forwarded to network 70 by a router 68 integrated in the DSLAM 69 (col. 5, ll 6-9, col. 6, ll 25-29 and col. 7, ll 10-20).

Given the teaching of Milbrandt, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Schuster by integrating router(s) 240 of Schuster shown in Fig. 4 into the DSLAM 270, such that the voice gateway (the router residing in the provider A of voice 242a) would be connected to the PSTN (229) via the modified DSLAM 270 (integrated with router(s) 240) which would be coupled between the derived voice over data termination device (ITG 250) and the voice gateway (the router residing in the provider A of voice 242a). The suggestion/motivation to do so would have been to integrate a router as part of a DSLAM as taught by Milbrandt (col. 7, ll 10-20). Further it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Regarding claim 22, it is inherent that the base-band analog connection (ADSL 214c in Fig. 4) is over a single metal wire pair.

Regarding claim 23, Schuster teaches that the base-band analog connection (ADSL 214c in Fig. 4) is via a splitter (218), and the digital data signals (incoming frequencies containing IP data) are transmitted between a client premise equipment (an ADSL CPE must be included at the

Art Unit: 2663

customer location) and the splitter (218) over the single metal wire pair (ADSL 214c) (in similar embodiment to Fig. 4, col. 10, ll 19-24, in Fig. 2, Schuster teaches that the splitter 218 would pass frequencies containing IP data carried over ADSL line onto the IP telephony system 130, col. 5, ll 64-col. 6, ll 2).

Regarding claim 24, Schuster teaches transmitting digital data signals between the splitter (218 in Fig. 4) and the DLSAM (270) (see Fig. 2 similar to Fig. 4, col. 5, ll 64-col. 6, ll 2).

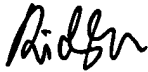
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima
December 13, 2005
NJ


RICKY Q. NGO
PATENT EXAMINER
RICKY Q. NGO
SUPERVISORY PATENT EXAMINER